

21



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,928	03/22/2004	Raymond Elijah Barnett	TI-36636	1045
7590	03/08/2005			
Dan Swayze Texas Instruments Incorporated P. O. Box 655474, M/S 3999 Dallas, TX 75265			EXAMINER NEGRON, DANIEL L	
			ART UNIT 2651	PAPER NUMBER

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/805,928

Applicant(s)

BARNETT ET AL.

Examiner

Daniell L. Negrón

Art Unit

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☒ Claim(s) 4 and 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

1. Claims 4 and 10 are objected to because of the following informalities:

Regarding claim 4, the recitation "...each of said overshoot amplitudes..." lacks antecedent basis. Examiner considers that in claim 1 from which claim 4 depends, expresses "an overshoot amplitude" in singular form while claim 4 expresses the term in plural form.

Regarding claim 10, the recitation "...said second current..." lacks antecedent basis. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Lacombe U.S. Patent No. 6,496,317.

Regarding claim 1, Lacombe discloses a write current circuit (Fig. 4) for a mass media write head comprising a head write driver circuit adapted to drive the write head with a write current signal having a positive write edge and a negative write edge (e.g. signals WHX and WHY), and a further circuit coupled with the head write driver circuit and adapted to selectively provide pulsing signals which define an overshoot amplitude of the positive write edge and

Art Unit: 2651

negative write edge (i.e. signal transitions) of the write current signal, wherein the further circuit is a differential current source (column 7, lines 10-17).

Regarding claim 3, Lacombe discloses a write current circuit wherein the differential current source is programmable (column 7, lines 59-65 and column 9, lines 40-43).

Regarding claim 4, Lacombe discloses a write current circuit wherein the further circuit is adapted to selectively provide a defined amplitude of each of the overshoot amplitudes (column 9, lines 19-44).

Regarding claim 5, Lacombe discloses a write current circuit wherein the further circuit is programmable for providing differential overshoot amplitudes for the positive write edge and the negative write edge (column 7, lines 59-65 and column 9, lines 40-43).

Regarding claim 6, Lacombe discloses a write current circuit wherein the further circuit includes a delay circuit for selectively providing a defined pulse width (i.e. delay period) for each of the overshoots (column 9, lines 22-25).

Regarding claim 7, Lacombe discloses a write current circuit wherein the delay circuit is programmable for providing differential overshoot pulse widths for the positive write edge and the negative write edge (column 9, lines 52-55).

Regarding claims 8-17, claims 8-17 have limitations similar to those treated in the above rejections of claims 1-7, and are met by the reference as discussed above.

Regarding claims 18 and 19, method claims 18 and 19 are drawn to the method of using the corresponding apparatus claimed in claims 1-9. Therefore method claims 18 and 19 correspond to apparatus claims 1-9 and are rejected for the same reasons of anticipation as used above.

Art Unit: 2651

***Prior Art***

4. U.S. Patent Application Publication No. 2003/0151839 is cited as of interest for disclosure of a write driver comprising overshoot control with differential pulse generation.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniell L. Negrón whose telephone number is 703-305-6985. The examiner can normally be reached on Monday-Friday (8:30-6:00) alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on 703-308-4825. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DLN   
March 1, 2005

  
DAVID HUDSPETH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600